Blueprint Draft - Recursive Lung Tank Publishing Outline

Title: The Recursive Lung Tank: A Self-Balancing Organ for Closed-System Respiration

Author: Minh Malcolm Hai Nguyen

Publication Type: Open-Access Engineering Research Blueprint

Status: Public Domain / Open Hardware Declaration

Purpose:

To introduce a closed-loop oxygen cycling system based on recursive dynamics, for use in space travel, sealed habitats, and entropy-aware medical devices.

Sections for Publishing:

1. Abstract
   - What is a Recursive Lung Tank?
   - Why recursion matters in respiration and entropy flow

2. Background
   - Biological respiration vs. mechanical gas exchange
   - Limitations of linear oxygen delivery
   - Role of entropy and delta² dynamics

3. Design Overview
   - 4-tube input/output system
   - 3-chamber tank design (Fresh O2, Recycled O2, Overflow)
   - Mouthpiece filtration loop using fractal separation

4. Theory

- Recursive airflow behavior
- Delta(Entropy squared) as a cycling logic
- Thermal and pressure equilibrium in recursive breath

5. Schematics

- Annotated top-down diagram
- Labeled airflow path and tank logic
- Mathematical flow rate model

6. Engineering Feasibility

- Materials (sorbent mesh, fractal nozzles)
- Flow regulation
- Integration with AI-controlled breath sync

7. Applications

- Astronaut life-support systems
- Emergency backup respirators
- Space stations, deep-earth habitats

8. Open Science Statement

- Released into public domain
- Encouraged adaptation and scaling

Appendix:

- Calculations

- Design iterations
- Sensor-feedback logic

Prepared for peer distribution, open-source fabrication, and recursive systems integration.

This blueprint establishes the Recursive Lung Tank as a foundational step in entropy-aware human-machine environments.